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3.3.6 Probiotics3.3.7 Flavors; 3.4 Conclusion; References; Chapter 4 Methodologies Used for the Characterization of Nano- and Microcapsules; 4.1 Introduction; 4.2 Methodologies used for the characterization of nano- and microcapsules; 4.2.1 Particle size and particle size distribution; 4.2.2 Zeta potential measurement; 4.2.3 Morphology; 4.2.4 Membrane flexibility; 4.2.5 Stability; 4.2.6 Encapsulation efficiency; 4.3 Conclusion; Acknowledgements; References; Chapter 5 Advanced Approaches of Nano- and Microencapsulation for Food Ingredients; 5.1 Introduction
5.2 Nanoencapsulation based on the microencapsulation technology5.3 Classification of the encapsulation system; 5.3.1 Nanoparticle or microparticle; 5.3.2 Structural encapsulation systems; 5.4 Preparation methods for the encapsulation system; 5.4.1 Emulsification; 5.4.2 Precipitation; 5.4.3 Desolvation; 5.4.4 Ionic gelation; 5.5 Application of the encapsulation system in food ingredients; 5.6 Conclusion; References; Part II Nano- and microencapsulations of food ingredients; Chapter 6 Nano- and Microencapsulation of Phytochemicals; 6.1 Introduction; 6.2 Classification of phytochemicals
6.2.1 Flavonoids

Sommario/riassunto

Today, nano- and microencapsulation are increasingly being utilized in the pharmaceutical, textile, agricultural and food industries. Microencapsulation is a process in which tiny particles or droplets of a food are surrounded by a coating to give small capsules. These capsules can be imagined as tiny uniform spheres, in which the particles at the core are protected from outside elements by the protective coating. For example, vitamins can be encapsulated to protect them from the deterioration they would undergo if they were exposed to oxygen. This book highlights the principles, app